

MINUTES OF THE MEETING

TECHNICAL COMMITTEE ON HAZARDOUS MATERIALS PROTECTIVE CLOTHING AND EQUIPMENT

March 15-17, 2011 Atlanta, GA

The meeting was called to order by acting chair Karen Lehtonen, at 10.02 on Tuesday 15 March 2011.
The following members and guests were present:

MEMBERS IN ATTENDANCE:

Karen Lehtonen, Acting Chairman; Lion Apparel, Inc.
Pat Gleason, Secretary; Safety Equipment Institute
David Trebisacci, NFPA Staff Liaison

Bill Alexander	Onguard Industries
Christina Baxter	DOD/CTTSO
John Berna	FDNY
Ted Cooper	US Department of the Navy (NSWC)
Paul Dacey	W.L. Gore & Associates
Richard Daly	St. Charles Fire Department
Amy Edwards	Geomet
William Fithian	Safety Equipment Institute
Dan Gohlke	W L Gore and Associates
Russell Greene	Battelle
Todd Haines	D/FW International Airport Fire-Rescue
Ira Harkness	US Department of the Navy (NSWC)
Bill Haskell	NIOSH NPPTL
Bruce Kelly	Fairfield County Haz Mat Team
Ron Koniz	Gentex Corporation
Beth Lancaster	MARCORSYSCOM
Susan Lovasic	DuPont Protection Technologies
Tom Martin	Lion Apparel, Inc.
Ulf Nystrom	Trelleborg Protective Products AB
Paul Rogers	FDNY
Donald Thompson	NC State University - TPACC
Michael Ziskin	Field Safety Corporation

GUESTS IN ATTENDANCE:

Jason Allen	Intertek
Ted Buck	Orr Safety
Ron DeMeo	RST
Robert Fithian	JPM Protection, Joint Research and Development
Ryan Hirschey	Saint-Gobain Performance Plastics
Kent Hofacre	Battelle
John Langley	Langley Consulting
Erik Lucas	SRI – DHS S & T CBD
Philip Mann	Kappler Inc.
Aaron Richardson	Battelle
Robert Sell	Draeger Safety
James Zeigler	DuPont Protection Technologies

Members and guests introduced themselves. NFPA Staff Liaison, Dave Trebisacci, read the Committee Procedures statement. A sign-in sheet was circulated to members and guests.

The Minutes of the last Committee meeting, held in Dayton, OH were reviewed.

Motion by Bill Haskell, second by Michael Ziskin

To: Approve the Minutes of the meeting, 17-18, May 2010 in Linthicum, MD.

Motion Carried.

Chair Remarks

Karen Lehtonen, filling in for Chairman Jirka, welcomed everyone to the meeting. Karen extended regrets from Chairman Glenn Jirka as he was unable to attend the meeting due to demands at his department. Karen noted that the purpose of this meeting is to complete the Report on Comments (ROC) for NFPA 1991, NFPA 1992 and NFPA 1994. Karen noted on February 28, 2011 the NFPA Standards Administration approved the TC request to enter a project for a Selection Care and Maintenance document (SCAM). Therefore, time permitting; the Technical Committee (TC) will begin work on SCAM.

Staff Liaison Report

Per a slide presentation, Dave Trebisacci reported that the Haz Mat TC has 31 members and 11 alternates. The committee is operating with the appropriate balance. For this meeting, Dave will continue to maintain a travel file and will record and project all actions taken on comments for NFPA 1991, NFPA 1992 and NFPA 1994. Dave described those actions which can be taken by the TC.

NFPA 1992 (22 comments reviewed)

It was noted during the review of NFPA 1992 that Karen will notify Eric Beck, TCC Secretary & Project Definitions Task Group Chair to update the definition for External Fittings per Log #2, and to update the definition of Respiratory Equipment per Log # 1.

With regard to Log #6 proposing use of the ASTM F 2700 method instead of the ISO 17492 method for determining heat transmission, it was decided to hold this proposal for further study in the absence of any validation testing presented to the TC.

To address Log #22, it was found that the most up to date boilerplate language addressing ISO 9001 registration requirements for manufacturers is contained in section 4.5 of NFPA 1952. This language along with the accompanying appendix language will be inserted in NFPA 1992. Additionally, the definition of manufacturer shall be updated at 3.4.44 to reflect the current project definition.

In connection with the TC discussion regarding Log #10 on the slip resistance test, Karen reviewed the ongoing work of the Structural Fire Fighter Protective Clothing TC's task group on slip resistance. The SATRA testing as part of the NFPA 1971 revision process did not include any NFPA 1991 certified boots. Bill Fithian volunteered to coordinate the testing of static coefficient of friction on current NFPA 1991 certified boots through an independent laboratory using the SATRA method. This will help validate an acceptable minimum performance for Haz Mat boots, validate the inter-lab reproducibility and help determine how well the method differentiates a satisfactory boot design from a poor design. If the data does not support the value proposed for section 7.3.9 of NFPA 1992, Karen will present the necessary changes to the TCC at their May meeting during their review of the NFPA 1992 ROC.

NFPA 1994 (26 comments reviewed)

The TC action taken on Log #17 and #24 was to hold for further study as there are unresolved modifications to the ASTM MIST standard F2588. It was noted that there has not been any conclusive data presented by the TCC task group on the testing of interfaces around the ensemble and respirator facepiece beyond what is included in the existing NFPA 1994 standard.

The action on Log #1 was to accept in principle. Refinements to the project definition for radiological particulate terrorism agents were made which Karen will submit to Eric Beck.

The same actions taken for NFPA 1992 logs on ISO 9000 requirements and slip resistance testing were also taken on NFPA 1994.

The Action on the logs addressing tests for glove dexterity was to hold for further study.

In reviewing Log #26 and #18, a lengthy discussion was held regarding concerns with the existing MIST test method and the work of the ASTM committee to resolve inconsistencies and PAD issues. It was noted that the ASTM work has, to date, not resulted in an approved standard; therefore, it cannot be referenced in the NFPA standards. The TC agreed to take the action of Accept in Principle for both logs, with language modifications that incorporate findings of the ASTM committee to date.

Following an extensive discussion, with regard to Log #16 and #25, the TC agreed to the Action of Accept in Principle with the note to see action taken on Log #20. A more descriptive drawing of the diffusion test cell referenced will be inserted in place of the proposed drawing. It was debated as to whether the NFPA standard could specify the diffusion test cell part #TOP 8-2-501 from Aerospace Tooling & Machining in UT, as it is critical to have conforming dimensions, geometry and materials of construction. It was decided to include this reference in the Annex, subject to NFPA concurrence.

NFPA 1991 (33 comments reviewed)

The TC reviewed Log #5 regarding modification of the pressure test referenced in the NFPA 1991 ROP. Following discussion to support the TC's previous decision to harmonize with international standards, the following Motion occurred:

**Motion by Ulf Nystrom, second by Christina Baxter
to reject Log #5.**

Motion carried by hand vote of 9 in favor and 3 opposed.

Log #9 was rejected as the requirement in 4.3.18 does not apply to footwear; it applies specifically to suit elements.

In discussing Log #31, it was noted that there are technical issues which must be addressed for closed circuit SCBA and NFPA 1991 ensembles. The TC did not find language that was design restrictive. The action was to reject the proposal.

Log # 28 action was to Accept in Principle with revised text based on additional Task Group work since the proposal stage. In discussing evaluation of Toxic Industrial Chemicals, the following motion occurred:

**Motion by Jim Zeigler, second by Ulf Nystrom
to evaluate Toxic Industrial Chemicals acrylonitrile, ammonia and chlorine measured at a 1 hour
break through-through time using ASTM F 739.**

Motion carried by hand vote of 13 in favor and 3 opposed.

With regard to Log #32, the TC agreed on the action to Accept in Principle in Part, and made changes to the proposed language. The final text is included in the committee action. The formatting changes proposed to eliminate listing all of the chemicals throughout Section 7 were not accepted.

The TC accepted the recommendation to evaluate the warfare agents using cumulative permeation and the alternate cell configuration. The TC did not agree to adopt cumulative permeation criteria to evaluate the barrier. A Task Group was established to review the criteria by which cumulative permeation could be utilized in future revisions to this document. The following were identified as participants: Bill Haskell – Chair, Christina Baxter, Don Thompson, Beth Lancaster, Ron Koniz, Susan Lovasic, Amy Edwards, Russ Greene, Philip Mann, Jason Allen and Jeff Stull.

Don Thompson discussed the liquefied gas test and the need for dry air to conduct this test as conditioned air may create plugging in the test cell. A committee comment will tie to Log #20 (to reinstate to optional liquefied gas performance requirements) to add a sub-paragraph stating the test cell for liquefied gasses shall be swept with nitrogen or dry air.

The action on Log #13 was to reject the recommendation to delete the overall ensemble flash fire test as the TC believes it helps to predict burn injury.

The TC agreed with the intent of Log #16 and suggested alternate wording to help define securely attached when using outer covers to meet the requirements of the standard.

Dave Trebisacci reported to the TC that the letter ballot for the Report on Comments for NFPA 1991, NFPA 1992 and NFPA 1994 will be issued to allow sufficient time for TC approval prior to the TCC ROC meeting May 24-26, 2011.

Prior to final publication of the standards, Dave indicated that a pre-publication draft would be circulated to the TC for a final editorial review.

Selection Care and Maintenance (SCAM) – NFPA 1853

On February 28, 2011, the NFPA Standards Council approved the TC request to develop this SCAM document. The SCAM document is currently on a fall 2013 cycle. A task group was established to begin a thorough review of the document. Michael Ziskin and Bruce Kelly will co-chair the Task Group with assistance from: Dan Gohlke, Jim Zeigler, Bob Fithian, Todd Haines, Ted Cooper, Paul Rogers, Cristina Baxter and Tom Martin.

New Business

The next meeting of the HazMat TC will be held on March 21-22, 2012. The proposed location is at DFW airport. Todd Haines volunteered to work with Dave Trebisacci on meeting arrangements.

**Motion by Beth Lancaster, second by Michael Ziskin
to adjourn.
Motion carried**

The meeting adjourned at 12:30 pm.

Respectfully submitted,
Patricia Gleason
Patricia Gleason, Secretary
TC on HMPCE